PATENT COOPERATION TR. TY

From the	INTERNATIONAL	BUREAL
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PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

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Assistant Commissioner for Patents United States Patent and Trademark Office Box PCT Washington, D.C.20231 ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year)
27 July 2000 (27.07.00)

International application No.
PCT/US99/26277

International filing date (day/month/year)
05 November 1999 (05.11.99)

Applicant

BLASZCZYK-THURIN, Magdalena et al

1.	The designated Office is hereby notified of its election made:
	X in the demand filed with the International Preliminary Examining Authority on:
	01 June 2000 (01.06.00)
	in a notice effecting later election filed with the International Bureau on:
2.	The election X was
	was not
	made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).
	nule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Diana Nissen

Telephone No.: (41-22) 338.83.38

Facsimile No.: (41-22) 740.14.35

PATENT COOPERATION TREATY

PCT

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

pplicant's or agent's file reference WST95PCT	FOR FURTHER ACTION See Not Prelimin	ification of Transmittal of International nary Examination Report (Form	
ternational application No.	International filing date (day/month/year)	Priority date (day/month/year)	
PCT/US99/26277	05 NOVEMBER 1999	06 NOVEMBER 1998	
ternational Patent Classification (IPCIPC(7): A61K 38/10 and US Cl.: 51	C) or national classification and IPC 4/2, 14, 15		
pplicant THE WISTAR INSTITUTE OF A	NATOMY AND BIOLOGY		
Examining Authority and	is transmitted to the applicant according	pared by this International Preliminary to Article 36.	
2. This REPORT consists of	and the desired the desired of the desired	escription, claims and/or drawings which have	
been amended and are (see Rule 70.16 and Se	the basis for this report andor sheets contain ection 607 of the Administrative Instructions	ing roomroom	
These annexes consist of a			
3. This report contains indicat	ions relating to the following items:		
I X Basis of the re	port		
II Priority		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
III Non-establish	ment of report with regard to novelty, inv	entive step or industrial applicability	
IV Lack of unity	of invention		
V X Reasoned stater citations and ex	nent under Article 35(2) with regard to nov planations supporting such statement	elty, inventive step or industrial applicability;	
VI Certain documen			
	in the international application		
VIII Certain observa	tions on the international application		
Date of submission of the demand	Date of comp	etion of this report	
01 JUNE 2000	FEBRU	CARY 2001	
Name and mailing address of the II	PEA/US Authorized of	see Budgers/	
Commissioner of Patents and T Box PCT	rademarks David L	LUKTON	

International application No.

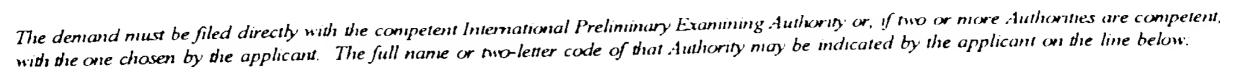
Ba	313 OI W	ie report		
Wat	negard to	the elements of the international appl	lication:*	
	the inte	rnational application as originall	y filed	
X				
X		cription: 1-56		, as originally filed
	pages _	NONE		, filed with the demand
	pages _	NONE	, filed with the letter of	
	pages _			
	the clai	ims:		, as originally filed
A	pages_	57-63	, as amended (together with any	statement) under Article 19
	pages_	110110	, as amended (together with any	, filed with the demand
	pages	NONE	ed with the letter of	
	pages	NONE , fil	ed with the letter or	
$\left[\mathbf{x}\right]$	the dra	wings:		, as originally filed
لثئ	pages	1-5		, as originally mod
	pages	NONE	, filed with the letter of	
	pages	NONE	, filed with the letter of	
X	the sec	quence listing part of the description	on:	:_:11
	pages	1 26		, as originally filed
	pages	NONE		, filed with the demand
	pages	NONE	, filed with the letter of	
	e internations in the lar	ents were available or furnished to the inguage of a translation furnished	for the purposes of international search	(under Rule 23.1(b)).
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International application No.

citations and explanations supporting	-		
statement			VIC
Novelty (N)	Claims	8-41	YES
•	Claims	1-2	
Inventive Step (IS)	Claims	5-41	
WASHING Prob (10)	Claims	1-2	NO
	Claims	1-41	YE
Industrial Applicability (IA)	Claims	NONE	NO
citations and explanations (Rule	70.7)		
Claims 1-2 lack novelty under PCT Artic	le 33(2) as bein	g anticipated by Heavner (USP 546	54935).
Heavner teaches (col 4, line 42+) peptides	which inhibit (col 1, lines 9-10) binding of selectin	s. The reference also teaches
(col 9 line 7+) pharmaceutical compositions	S .		
(col 9, line 7+) pharmaceutical compositions	s.	les the pentides are effective to m	odulate binding of selectins to
	s.	des; the peptides are effective to meto to encompass the peptides disclos	odulate binding of selectins to ed by Heavner; the claims are
The claims are drawn to compositions the receptors or ligands. The claims are of anticipated. Claims 3-41 meet the criteria set out in F	s. at contain peptions sufficient scope PCT Article 33	to encompass the persons	•
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International application No.

Supplemental Box (To be used when the space in any of the preceding boxes is not sufficient	ent)
Continuation of: Boxes I - VIII	Sheet 10



IPEA/ US

PCT

CHAPTER II

DEMAND

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible States (except where otherwise indicated).

For	International Preliminary	Examining Authority	use only	
Identification of IPEA Date of receipt of I		Date of receipt of DI	EMAND	
Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION		APPLICATION	Applicant's or agent's file reference WST93PCT	
International application No.	International filing date	(day/nionth/year)	(Earliest) Priority date (day/month/year)	
PCT/US99/26277	05 November 1999		06 November 1998	
Title of invention				
COMPOSITIONS AND ME	THODS FOR TR	EATMENT OF	CANCER	
Box No. II APPLICANT(S)				
Name and address: (Family name followed by	given name; for a legal entity;	full official designation.	Telephone No.:	
The address must include p	osiai code and name of commy,		215-898-3763	
The Wistar Institute of 3601 Spruce Street	Anacomy and bro	,1031	Facsimile No.:	
Philadelphia, Pennsylvan	ia 19104		215-573-2456	
United States of America			Teleprinter No.:	
The Trustees of the Uni	iversity of Pen ite 300	nsylvania	address must include postal code and name of country.)	
Philadelphia, Pennsylva United States of America	ania 19104–314 Ca	•		
State (that is, country) of nationality: United States		State (that is, coun United S	tates	
Name and address: (Family name followed by Blaszczyk-Thurin, Magd 28 University Mews Philadelphia, Pennsylv United States of Ameri	alena ania 19104		e address must include postal code and name of country.)	
State (that is, country) of nationality. United States		State what is, count United St		
X Further applicants are indicated of				

Sheet No. 2

International application No. PCT/US99/26277

Continuation of Box No. II APPLICANT(S)			
If none of the following sub-boxes is used, this sheet should not be included in the demand.			
Name and address: (Family name followed by given name; for a legal entity, for the Kieber-Emmons, Thomas 3231 Saw Mill Road Newtown Square, Pennsylvania 19073 United States of America	full official designation. The address must include postal code and name of country:)		
State (that is, country) of nationality: United States	State (that is, country) of residence: United States		
Name and address: (Family name followed by given name; for a legal entity, fi	ill official designation. The address must include postal code and name of country.)		
State (that is, country) of nationality:	State (that is, country) of residence:		
Name and address: (Family name followed by given name; for a legal entity, fu	ll official designation. The address must include postal code and name of country.)		
State (that is, country) of nationality:	State (that is, country) of residence:		
Name and address. (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country:) State (that is, country) of nationality: State (that is, country) of residence.			
Further applicants are indicated on another continuation shee	ાં.		

		3	
Sheet	Nο	J	

International application No. PCT/US99/26277

Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CO	RRESPONDENCE			
The following person is X agent common representative				
and X has been appointed earlier and represents the applicant(s) also for international preliminary examination.				
is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.				
is hereby appointed, specifically for the procedure before the International Prelimithe agent(s)/common representative appointed earlier.				
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)	Telephone No.:			
Bak, Mary E.	215-540-9200			
Howson and Howson Facsimile No.:				
Spring House Corporate Center P.O. Box 457	215-540-5818			
Spring House, Pennsylvania 19477				
United States of America	Teleprinter No.:			
Address for correspondence: Mark this check-box where no agent or common respace above is used instead to indicate a special address to which correspondence	presentative is/has been appointed and the should be sent.			
Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION				
Statement concerning amendments:*				
1. The applicant wishes the international preliminary examination to start on the basis of:				
the international application as originally filed				
the description as originally filed				
as amended under Article 34				
the claims as originally filed				
as amended under Article 19 (together with any accompanying	statement)			
as amended under Article 34				
the drawings as originally filed				
as amended under Article 34				
2. The applicant wishes any amendment to the claims under Article 19 to be considered.	ed as reversed.			
The applicant wishes the start of the international preliminary examination to be possifrom the priority date unless the International Preliminary Examining Authority reunder Article 19 or a notice from the applicant that he does not wish to make such a box may be marked only where the time limit under Article 19 has not yet expired.)	ceives a copy of any amendments made mendments (Rule 69.1(d)). (This check-			
Where no check-box is marked, international preliminary examination will start on the as originally filed or, where a copy of amendments to the claims under Article 19 and/or am under Article 34 are received by the International Preliminary Examining Authority before or the international preliminary examination report, as so amended.	endments of the international application			
Language for the purposes of international preliminary examination: English				
which is the language in which the international application was filed.				
which is the language of a translation furnished for the purposes of international search.				
which is the language of publication of the international application.				
which is the language of the translation (to be) furnished for the purposes of in	ternational preliminary examination.			
Box No. V ELECTION OF STATES				
The applicant hereby elects all eligible States (that is, all States which have been designated the PCT)	l and which are bound by Chapter II of			
excluding the following States which the applicant wishes not to elect:				

The demand is accompanied by the following elem			International application No. PCT/US99/26277		
The demand is accompanied by the following elem					
Box No. IV, for the purposes of international pre-	nents, in the lang liminary examin	uage referred to in ation:		ional Preliminary Authority use only not received	
1. translation of international application	:	sheets			
2. amendments under Article 34	:	sheets			
3. copy (or, where required, translation) of amendments under Article 19	:	shcets			
4. copy (or, where required, translation) of statement under Article 19	:	sheets			
5. letter	:	shccts			
6. other (specify)	:	sheets			
copy of general power of attorney; reference number, if any: No. VII SIGNATURE OF APPLICANT, AC		6. other (specify			
By: Moy E. Bak Attorney for Applicants	nd the capacity in wh			om reading the dema	
For International	l Preliminary Ex	amining Authority use	only ————		
. Date of actual receipt of DEMAND:		-g :	· ,		
Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):				4	

For International Bureau use only

The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5.

Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival

is EXCUSED pursuant to Rule 82.

Demand received from IPEA on:

5.

PATENT COOPERATION TREATY

From the INTERNATIONAL PRELIMINAR	Y EXAMINING AUTHORITY		
To: MARY E. BAK			PCT
HOWSON AND HOWSON	1		
P.O. BOX 457	RATE CENTER		WRITTEN OPINION
SPRING HOUSE, PA 194			ENTEDE
	146121111111111111111111111111111111111		(PCT Rule 66)
	2000		ORTH-14
1	SEP 1 1 2000		
		Date of Mailing (day/month/year)	07 SEP 2000
Applicant's or agent's file references WST93PCT	nce		vithin TWO months rom the above date of mailing
International application No.	International filing date	(day/month/year)	Priority date (day/month/year)
PCT/US99/26277	05 NOVEMBER 19	99	06 NOVEMBER 1998
International Patent Classification IPC(7): A61K 38/10 and US ((IPC) or both national classifical: 514/2, 14, 15	cation and IPC	
Applicant THE WISTAR INSTITUTE OF	E ANATOMY AND DIOLOGS	,	
THE WISTAK INSTITUTE OF	- ANATONIT AND BIOLOG		
4 701 : f	irst (first etc.)		
1. This written opinion is the	(lirst, etc.)	frawn by this Interna	tional Preliminary Examining Authority.
2. This opinion contains indicat	ions relating to the following it	ems:	
I X Basis of the of	pinion		
II Priority			
III Non-establishr	nent of opinion with regard to	novelty inventive sta	en or industrial applicability
<u> </u>		noveky, inventive sk	
IV Lack of unity	of invention		
I A I	ment under Rule 66.2(a)(ii) wit explanations supporting such sta	_ •	inventive step or industrial applicability;
VI Certain docum	ients cited		
VII Certain defects	s in the international application	ı	
VIII Certain observ	rations on the international appl	ication	
3. The applicant is hereby invite	ed to reply to this opinion.		
	imit indicated above. The appli grant an extension., see Rule 6	-	expiration of that time limit, request this
	g a written reply, accompanied, and the language of the amend		by amendments, according to Rule 66.38 and 66.9.
	onal opportunity to submit amer iner's obligation to consider an		
For an inform	nal communication with the exa	miner, see Rule 66.	
		ion report win be es	donstied on the basis of this opinion.
4. The final date by which the incommunication report must be a	established according to Rule 6	9.2 is: <u>06 MARCH</u>	2001 .
Name and mailing address of the	IDE A /I IS	Authorizad off	
Name and mailing address of the Commissioner of Patents and		Authorized officer	huse knings
Box PCT Washington, D.C. 20231		DAVID LUKTO	N J
Facsimile No. (703) 305-3230		Telephone No. (703) 308-0196

Form PCT/IPEA/408 (cover sheet) (July 1998) *

WRITTEN OPINION

International application No.

I.	В	asis (of the opi	inion				
1.	With	rega	rd to the el	ements of the interna	ational application	on:*		
	\mathbf{x}			nal application as				
			description		C			
	X		es	1-56				, as originally filed
			es	NONE				, filed with the demand
		-	es	NONE				
	X		claims:	<i>57. (2</i>)				
			es	57-63				, as originally filed
			es					atement) under Article 19
			es es		filed w			, filed with the demand
		P-6			, med w	in the letter of		
	X	the	drawings:					
'		page	es	1-5				, as originally filed
		page	es					, filed with the demand
		page	es	NONE		, filed with the letter of	of	
ſ	VI	tha	aguenee l	intima mant aftha d				
į	X			isting part of the d 1-36	escription:			an originally filed
		page page		NONE				, as originally filed, filed, filed with the demand
		page		NONE		, filed with the letter of		
]]]	Thes	se ele the l	ments were anguage of anguage of	e available or furnisless of a translation function of the	ned to this Authrnished for the internation	e indicated under this iten nority in the following langue te purposes of international nal application (under I ourposes of international p	guageonal search (un Rule 48.3(b)).	
3.		-	-	nucleotide and/or a of the sequence list	_	puence disclosed in the int	temational applic	cation, the written opinion was
	X	conta	ained in th	he international ap	oplication in 1	printed form.		
r						on in computer readable	lo form	
L	===		_		• •	•	ic rorm.	
Ĺ				equently to this A	•			
Ĺ		furni	shed subs	equently to this A	Authority in e	omputer readable form		
		The inter	statement national ap	that the subsequent oplication as filed l	tly furnished v has been furni	written sequence listing shed.	does not go bey	ond the disclosure in the
		The s been	statement to furnished.	hat the information	recorded in co	imputer readable form is	identical to the v	writen sequence listing has
4.	X	The	amendme	nts have resulted	in the cancel	lation of:		
		X	the desc	ription, pages	NONE			
		X		• • • • = =	NONE			
				ns, Nos.	NONE NONE			
ا ہے				vings, sheets/ fig _	· · · · · · · · · · · · · · · · · · ·	<u> </u>		
5.		_	•		•	mendments had not been Supplemental Box (Rule	· -	have been considered to go
	• .			hich have been furni. ginally filed".	shed to the rece	eiving Office in response to	o an invitation und	der Article 14 are referred to

WRITTEN OPINION

International application No.

V.	Reasoned statement under Rule 66.2(: citations and explanations supporting		gard to novelty, inventive step or industrial applica	bility;
1.	statement			
	Novelty (N)	Claims	3-41	YES
		Claims	1-2	_ NO
	Inventive Step (IS)	Claims	3-41	YES
		Claims	1-2	_ NO
	Industrial Applicability (IA)	Claims	NONE	YES NO
		Claims	NONE	_ NO
,	receptors or ligands. The claims are of suf anticipated.	chich inhibit (co contain peptides ficient scope to	It I, lines 9-10) binding of selectins. The reference also to the peptides are effective to modulate binding of select pencompass the peptides disclosed by Heavner; the claim	ins to
	Claims 3-41 meet the criteria set out in PCT A compositions or associated methods.	article 33(2)-(3)	, because the prior art does not teach or fairly suggest the cla	aimed
(Claims 1-41 meet the criteria set out in PCT	Article 33(4) f	or industrial applicability.	
	NEW CITATIONS NONE			

WRITTEN OPINION	International application No. PCT/US99/26277
Supplemental Box (To be used when the space in any of the preceding boxes is not su	utTicient)
Continuation of: Boxes I - VIII	Sheet 10
TIME LIMIT: The time limit set for response to a Written Opinion may not be received after the expiration of the time limit set in the Written Opinion were limit ary Examination Report.	e extended. 37 CFR 1.484(d). Any response will not be considered in preparing the Internations

PATENT COOPERATION TREATY

From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: MARY E. BAK
HOWSON AND HOWSON
SPRING HOUSE CORPORATE CENTER
P.O. BOX 457
SPRING HOUSE, PA 19477

PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

IMPORTANT NOTIFICATION

Date of Mailing (day/month/year)

05 MAR 2001

Applicant's or agent's file reference

WST93PCT

International filing date (day/month/year)

Priority Date (day/month/year)

PCT/US99/26277

International application No.

05 NOVEMBER 1999

06 NOVEMBER 1998

Applicant

THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY

- 1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international
- 2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks
Box PCT

Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

DAVID LUKTON

Telephone No. (703) 308-0196

Budgerfor

Form PCT/IPEA/416 (July 1992)★

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference WST95PCT	FOR FURTHER ACTIO		cation of Transmittal of International ary Examination Report (Form
International application No.	International filing date (day/month/year)	Priority date (day/month/year)
PCT/US99/26277	05 NOVEMBER 1999		06 NOVEMBER 1998
International Patent Classification (IPC IPC(7): A61K 58/10 and US Cl.: 514		nd IPC	
Applicant THE WISTAR INSTITUTE OF AN.	ATOMY AND BIOLOGY		
Examining Authority and is 2. This REPORT consists of a This report is also accord	s transmitted to the application of sheets. In total of ANNEXES, i.e.	cant according to , sheets of the desc	red by this International Preliminary Article 36. cription, claims and/or drawings which have ng rectifications made before this Authority.
(see Rule 70.16 and Sec	tion 607 of the Administrat	ive Instructions u	nder the PCT).
These annexes consist of a to	otal of <u>(/</u> sheets.		
3. This report contains indication	ns relating to the following	ng items:	
I X Basis of the repo	ort		
II Priority			
<u></u>		to novolty invant	tivo eten or industrial annlicability
		w noverty, invent	tive step or industrial applicability
IV Lack of unity of	invention		
	nt under Article 35(2) with anations supporting such st		, inventive step or industrial applicability,
VI Certain documents	cited		
VII Certain defects in	the international applicatio	n	
VIII Certain observation	ns on the international app	lication	
VIII GOLULIA GOSGI VIII G	Lo du La calcalante de		
			,
Date of submission of the demand		Date of completion	n of this report
01 JUNE 2000		20 FEBRUAR	Y 2001
Name and mailing address of the IPEA	//US	Authorized officer	Bridgens 1
Commissioner of Patents and Trade Box PCT		TAVID LUKT	- Budger
Washington, D.C. 20231			(703) 308-0196
Facsimile No. (703) 305-3230		. c.cp.none 140.	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

International application No.

L. B	asis o	f the report		
1. Wit	h regar	d to the elements of the interns	ational application:*	
X		nternational application as		
x	the o	description:		
	page	s <u>1-56</u>		, as originally filed
	page	s NONE		•
	page	s NONE	, filed with the letter of	
	tha	Joima		
X		claims: s 57-63		11 (**1 1
			, as amended (together with any	statement) under Article 19
		NONE	, as amended (together with any	
	page	s NONE	, filed with the letter of	
	41 1			
X		lrawings: - 1-5		
		NONE NONE		, filed with the demand
	Page		, filed with the letter of	
X	the se	equence listing part of the d	escription:	
	page	1-36		, as originally filed
	page			_ , filed with the demand
	page	NONE NONE	, filed with the letter of	
	the la	nguage of publication of the translation furni	mished for the purposes of international search (the international application (under Rule 48.3(b)). ished for the purposes of international preliminary examples.	
3. Wit	h rega	rd to any nucleotide and/or	amino acid sequence disclosed in the international	application, the international
pre	limina	ry examination was carried	out on the basis of the sequence listing:	
X	contai	ined in the international ap	oplication in printed form.	
	filed t	ogether with the internation	onal application in computer readable form.	
	furnis	hed subsequently to this A	uthority in written form.	
	furnis	hed subsequently to this A	uthority in computer readable form.	
	The st	atement that the subsequent ational application as filed h	ly furnished written sequence listing does not go be as been furnished.	eyond the disclosure in the
	The st been f	atement that the information is	recorded in computer readable form is identical to the	writen sequence listing has
4 X	The a	mendments have resulted	in the cancellation of:	
٠. ـــــــــ	T T	the description, pages	NONE	
	X	the claims, Nos.	NONE	
		the drawings, sheets/fig	NONE	
5			 	though the second of the secon
~· []	_		me of) the amendments had not been made, since they indicated in the Supplemental Box (Rule 70.2(c)).**	nave been considered to go
in thi	cemen	t sheets which have been furnis ort as "originally filed" and a	shed to the receiving Office in response to an invitation user to an invitation user to an invitation user to the second to this report since they do not continue to the second to the	under Article 14 are referred to ain amendments (Rules 70.16
**Any	replac	ement sheet containing such	amendments must be referred to under item 1 and as	nnexed to this report.

International application No.

1. statement			
Novelty (N)	Claims	3-41	VID
	Claims	1-2	YE
Inventive Step (IS)	Claima	9.41	
(15)	Claims Claims	1-2	YE
		1-2	NO
Industrial Applicability (IA)	Claims	1-41	3770
	Claims	NONE	YE
citations and explanations (Rule Claims 1-2 lack novelty under PCT Artic	-	anticipated by Heavner (USP 5464935).	
Heavner teaches (col 4, line 42+) peptides (col 9, line 7+) pharmaceutical composition	which inhibit (co	ol 1, lines 9-10) binding of selectins. The reference	also teaches
The claims are drawn to compositions that recentors or ligands. The claims are of	it contain peptide	outhornal of the second	
anticipated. Claims 3-41 meet the criteria set out in P	CT Article 33(2).	s; the peptides are effective to modulate binding of to encompass the peptides disclosed by Heavner; the	e claims are
anticipated.	CT Article 33(2)	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Pe	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
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anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are
anticipated. Claims 3-41 meet the criteria set out in Peclaimed compositions or associated methods. Claims 1-41 meet the criteria set out in Peclaims 1-	CT Article 33(2).	o encompass the peptides disclosed by Heavner; the	e claims are

International application No.

PCT/US99/26277 Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient) Continuation of: Boxes I - VIII Sheet 10

For receiving Office use only **PCT** International Application No. REQUEST International Filing Date The undersigned requests that the present international application be processed Name of receiving Office and "PCT International Application" according to the Patent Cooperation Treaty. Applicant's or agent's file reference (if desired) (12 characters maximum) WST93PCT TITLE OF INVENTION Box No. 1 COMPOSITIONS AND METHODS FOR TREATMENT OF CANCER APPLICANT Box No. II Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is Indicated below.) This person is also inventor. Telephone No. The Wistar Institute of Anatomy and Biology 215-898-3763 3601 Spruce Street Facsimile No. Philadelphia, Pennsylvania 19104 215-573-2456 United States of America Teleprinter No. State (that is, country) of residence: State (that is, country) of nationality: United States of America United States of America the States indicated in the Supplemental Box all designated States except the United States of America the United States This person is applicant all designated of America only States for the purposes of: FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S) Box No. III Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is: applicant only The Trustees of the University of Pennsylvania applicant and inventor 3700 Market Street, Suite 300 Philadelphia, Pennsylvania 19104-3147 inventor only (If this check-box United States of America is marked, do not fill in below.) State (that is, country) of residence: State (that is, country) of nationality: United States of America United States of America the States indicated in all designated States except the United States of America the United States This person is applicant all designated of America only the Supplemental Box States for the purposes of: Further applicants and/or (further) inventors are indicated on a continuation sheet. \mathbf{x} AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE Box No. IV The person identified below is hereby/has been appointed to act on behalf common representative agent X of the applicant(s) before the competent International Authorities as: Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) Telephone No. 215-540-9200 Bak, Mary E. Facsimile No. Howson and Howson Spring House Corporate Center 215-540-5818 P.O. Box 457 Teleprinter No Spring House, Pennsylvania 19477 United States of America

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the

Sheet No.

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURT	THER) INVENTOR(S)
If none of the following sub-boxes is used, this sheet should	
Name and address: (Family name followed by given name; for a legal entity, full designation. The address must include postal code and name of country. The country address indicated in this Box is the applicant's State (that is, country) of residence if n of residence is indicated below.) Blaszczyk-Thurin, Magdalena 28 University Mews Philadelphia, Pennsylvania 19104 United States of America	
United States of America United United United United United United United States except the United States of America	States of America The United States of America the States indicated in the Supplemental Box
Name and address: (Family name followed by given name; for a legal entity, full designation. The address must include postal code and name of country. The country address indicated in this Box is the applicant's State (that is, country) of residence if no fresidence is indicated below.) Kieber-Emmons, Thomas 3231 Saw Mill Road Newtown Square, Pennsylvania 19073 United States of America	official by of the no State This person is: applicant only x applicant and inventor inventor only (If this check-box is marked, do not fill in below.)
1 .11/110 11/11/11 (3, 6,00/11) // 01 //2////////	country) of residence: States of America the United States the States indicated in the Supplemental Box
Name and address: (Family name followed by given name; for a legal entity, full designation. The address must include postal code and name of country. The country address indicated in this Box is the applicant's State (that is, country) of residence if of residence is indicated below.)	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)
State (mar is, country) or nationally.	the United States the States indicated in
This person is applicant for the purposes of: All designated States except the United States of America	Il official
State (mat is, Country) of maternative	the United States the States indicated
This person is applicant for the purposes of: all designated States except the United States of Americ	a of America only the Supplemental Bo
Further applicants and/or (further) inventors are indicated on another con	ntinuation sheet.

Sheet No. 3.....

Box N	o.V	DESIGNATION OF STATES			<u> </u>				
The fo	llowin	ig designations are hereby made under Rule 4.9(a) (m.	ark the	e appli	icable check-boxes; at least one must be marked):				
Region	aal Da	tont							
CERIO	AP	ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, I	HICH I	3 a Ci	MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland, ontracting State of the Harare Protocol and of the PCT				
	EA	Eurasian Patent: AM Armenia, AZ Azerbaijan, Moldova, RU Russian Federation, TJ Tajikistan, The of the Furnsian Patent Convention and of the PCT	BY E M Tur	Belaru Kmen	istan, and any other State which is a Contracting State				
X		DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GK Orecce, 12 Ireland, 17 Italy, 20 Belling of the European MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Potent Convention and of the PCT							
		OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)							
Nation	al Pate	nt (if other kind of protection or treatment desired, specify (on dott	ted line	e):				
		United Arab Emirates			Liberia				
		Albania		LS	Lesotho				
][Armenia			Lithuania				
		Austria			Luxembourg				
\boxtimes		Australia	i		Latvia				
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	CH	and LI Switzerland and Liechtenstein		NO	Norway				
	CN	China			New Zealand				
	CU	Cuba		PL	Poland				
	\mathbf{CZ}	Czech Republic		PT	Portugal				
		Germany		RO	Romania				
		Denmark		RU	Russian Federation				
	EE	Estonia			Sudan				
	ES	Spain			Sweden				
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	JP	Japan			Uzbekistan,				
		Kenya	L		Viet Nam				
		Kyrgyzstan	Ĺ		! Yugoslavia				
	KP	•		ZA					
				ZV	V Zimbabwe				
		Republic of Korea	CI be	come	poxes reserved for designating States which have party to the PCT after issuance of this sheet:				
		Saint Lucia							
	IL	Sri Lanka							
Pro		Contract to addition to the decic	natio	ns mac	de above, the applicant also makes under Rule 4.9(b) all othe				
					HILLIAN HILLIAN CHARLES HILLIAN CONTROLLAR C				
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			ne priority date is to be regarded as withdrawn by the applicant be filing of a notice specifying that designation and the payment of the swithin the 15-month time limit.)				
atth	e expi	ration of that time limit. (Confirmation of a designation of tion and confirmation fees. Confirmation must reach the re	eceivin	g Offic	ce within the 15-month time limit.)				
$L_{-}^{inc}a$	wsigno	mon and conga manorifection conga manari			See Notes to the request for				

Supplemental Box

If the Supplemental Box is not used, this sheet should not be included in the request.

- 1. If, in any of the Boxes, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No..." [indicate the number of the Box] and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:
 - (i) if more than two persons are involved as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;
- (ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Box No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;
- (iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;
- (iv)—if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;
- (v) if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "continuation" or "continuation-in-part": in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;
- (vi) if, in Box No. VI, there are more than three earlier applications whose priority is claimed: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI;
- (vii) if, in Box No. VI. the earlier application is an ARIPO application: in such case, write "Continuation of Box No. VI", specify the number of the item corresponding to that earlier application and indicate at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed.
- 2. If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s) from the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate the name or two-letter code of each State so excluded.
- 3. If the applicant claims, in respect of any designated Office, the benefits of provisions of the national law concerning non-prejudicial disclosures or exceptions to lack of novelty: in such case, write "Statement concerning non-prejudicial disclosures or exceptions to lack of novelty" and furnish that statement below.

"Continuation of Box No. IV"

Kita, Stanley B.
Smith, George A., Jr.
Kodroff, Cathy A.
Bak, William

All above attorneys are members of the firm of Howson and Howson. Address of all is indicated in Box IV.

Box No. VI PRIORITY C	LAIM	Further prio	rity claims are indicated	in the Supplemental Box.
Filing date	Number		Where earlier applicati	ion is:
of earlier application (day/month/year)	of earlier application	national application: country	regional application:* regional Office	international application: receiving Office
item (1) 06 November 1998	60/107,478	United States of America		
(06.11.98) item (2)				
item (3)				
of the earlier application(s) (only if the earlier a iternational application	transmit to the International Bupplication was filed with the is the receiving Office) identif	ied above as item(s): #	1
* Where the earlier application is Convention for the Protection of I	an ARIPO application, it industrial Property for whi	is mandatory to indicate in the Such that earlier application was file	applemental Box at least or ad (Rule 4.10(b)(ii)). See Si	ne country party to the Paris upplemental Box.
Box No. VII INTERNATION	ONAL SEARCHING			
Choice of International Searce (if two or more International Searce competent to carry out the international searce the Authority chosen; the two-letter	earching Authorities are national search, indicate	Request to use results of ear search has been carried out by or Date (day month year)	rlier search; reference requested from the Interna Number	to that search (if an earlier tional Searching Authority): Country (or regional Office)
ISA/US				
Box No. VIII CHECK LIS		•		
This international application the following number of sheet	ets:	ational application is accompa- calculation sheet	nied by the item(s) mark	ked below:
request :	5 1 —	rate signed power of attorney		
description (excluding		of general power of attorney;	reference number, if ar	ıy:
sequence listing part) : : : : : : : : : : : : : : : : : : :		ment explaining lack of signat		
abstract :	· ·	rity document(s) identified in I		
drawings :		station of international applica		
sequence listing part	7 🗖 sena	rate indications concerning de		or other biological material
of description :		eotide and/or amino acid seque		
Total number of sheets: 1		er <i>(specify):</i> Transmittal		
Figure of the drawings whice should accompany the abstract	h	Language of filing of the international application:	English	
Box No. IX SIGNATURE	OF APPLICANT O	R AGENT		
Next to each signature, indicate the ri	name of the person signing a	id the capacity in which the person sig	gns (if such capacity is not ob	vious from reading the request).
Mary E. Ba	E. Bek or Applicants	6		
		For receiving Office use only		2. Drawings:
Date of actual receipt of the international application: The second s				received:
 Corrected date of actual retimely received papers or the purported international 	drawings completing			
 Date of timely receipt of the corrections under PCT At 	the required rticle 11(2):			not received:
5. International Searching A (if two or more are compe	uthority ISA /	6. Transmi until sea	ittal of search copy delay arch fee is paid.	yea
Date of receipt of the record by the International Bureau:	сору	or International Bureau use onl	у	